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Professor A. D. Bach,

Washington City.

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Philo White.

Professor C. D. Bach

AGRICULTURAL



**STATISTICS OF RACINE COUNTY,
WISCONSIN.**

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By Philo White

WISCONSIN STATE AGRICULTURAL SOCIETY, }
Madison, December 1st, 1851.

DEAR SIR: The Executive Committee of the Wisconsin State Agricultural Society, having determined to publish a volume of "Transactions" for the year 1851, are desirous of procuring for publication therein a general account of the AGRICULTURAL INTERESTS of Racine County... its crops... manner of cultivation... capacity... adaptation for tillage, as compared to stock raising... and such other information as you may think proper to send to the society.

If you will devote a portion of your leisure time to the preparation of such a paper for us, you will greatly assist the Society in accomplishing the ends for which it was organized. To each contributor we shall send a copy of the Volume, and all communications will be duly acknowledged therein. We should like the manuscript as early as January 1st, next. Yours, very truly,

ALBERT C. INGHAM,

Secretary Wisconsin State Agricultural Society.

To PHILO WHITE, Esq. }
Racine.

To ALBERT C. INGHAM, Esq. }
Sec'y. Wisconsin State Agr'l. Society: }

RACINE, JAN. 31st, 1852.

DEAR SIR: Your Circular of 1st ult., desiring me to prepare a paper for the State Agricultural Society, containing "a general account of the agricultural interests of Racine County," &c., was duly received.

My experience as a practical agriculturist having been extremely limited, and nearly every moment of my time and attention being absorbed in matters foreign to that subject, I had hoped that other gentlemen, more competent than myself to supply the desired memoir, of whom there are very many in our county, would have responded to your circular.

But having received your favor of the 2d instant, in which you say that I am alone depended on "for information as to that particular matter," I felt that I ought no longer to resist the appeal. I have accordingly devoted snatches of my time during two or three weeks past, to the collection of such random facts and statistics as I have been able to pick up by the way. These facts I have endeavored to arrange in such order as to afford a connected and clear idea of the agricultural statistics and farming interests of this county; and have accompanied them with such fugitive ideas in relation to the matter, as have either occurred to my own mind, or been elicited from others during my brief investigations of the subject.

AREA OF RACINE COUNTY.

Under the Territorial organization of Michigan, the district of country now comprising the State of Wisconsin was divided into four counties—Brown and Milwaukee, bounded on the East by Lake Michigan; and Iowa and Crawford, bordering the Mississippi on the West. A Territorial Government having been organi-

*[Racine, Wis. Bunker & Garrison
1852]*

zed for Wisconsin on the 4th day of July, 1836, its legislature, by an act of the 7th of December of that year, divided the county of Milwaukee, and erected therefrom the county of "RACINE," whose limits were thus defined: "Townships numbered 1, 2, 3 and 4 north, of ranges 19, 20, 21, 22 and 23 east." This included the present county of Kenosha, which was set off as a separate county in 1850, and by which Racine was curtailed of nearly one-half her original proportions. As now constituted, Racine county includes the full townships numbered 3 and 4 north, of ranges 19, 20, 21 and 22 east, and fractional townships 3 and 4 of range 23, bordering lake Michigan on the east—together with the four northern tiers of sections in township 2 of range 19: These boundaries give the county a superficies, by survey, not far from 218,500 acres—or, say 340 square miles.

PROPORTION OF LAND OCCUPIED AS FARMS.

Of the aggregate of 218,500 acres, I may safely assume, from the data to which I have had access, (the census returns of 1850, and statistical information from other sources) that 150,000 acres are owned or occupied as farms in this county—about 120,000 of which is improved, and say 30,000 in wood-lots and unimproved prairie; leaving 68,500 acres of unoccupied and non-resident lands, including lakes, ponds marshes, &c. And assuming that the present population of our county is 16,500 souls, (it was about 15,000 eighteen months ago—in June 1850) 9,500 of whom are engaged in farming operations; and assigning six persons to a family, it will follow that 1583 families are engaged in agricultural pursuits in this county.

EXTENT OF THE AGRICULTURAL INTEREST.

Of these 9,500 people, who comprise the 1583 families connected with farming in this county, there are doubtless 3,000 (say an average of two to each family of six persons) who are out-door operatives in performing the requisite labor on the farms; and they will accomplish an amount of labor equal to something like 250 days' work each, within the 365 days of the year. Now if we estimate their services at an average of 70 cents per day, it will show that the sum of \$525,000—over half a million—is expended annually in the county for farm-labor alone! Ten dollars per acre would be a moderate average of the value of the 150,000 acres occupied as farms; this will give an aggregate value for the land, of \$1,500,000: By the census returns in June, 1850, agricultural implements, farming tools and machines, were put down at not far from \$130,000; add for increase during the eighteen months that have elapsed since, say \$40,000, and we have an aggregate for that item of \$170,000: Besides these, the stock indispensable on a farm—including working horses and oxen, cows, hogs, sheep, beef and stock cattle, &c.,—forms no inconsiderable item in the requisite expenditure for the successful prosecution of that all-important industrial pursuit; the census makes this expenditure more than \$300,000, for 1850—say, at this time, (18 months later) \$350,000: Allowing \$300 to each farm, for dwellings, barns, out-buildings, &c., and we have \$474,900 for this item: It will hence appear, that the total investment in the operations of FARMING in Racine county, is at least \$3,019,900—over three millions of dollars!

In view of the small amount of capital possessed in so recently settled a community as ours, this is a vast sum to be expended in what I may be permitted to call the mere *preparations* for farming.....and within a county whose area scarcely exceeds twelve by twenty-eight miles.

AGRICULTURE THE PARAMOUNT INTEREST.

OF the four primordial sources from which the productive classes derive subsistence for themselves, and *create* wealth and power for nations, viz:—the SEA, the FOREST, the MINES, and the SOIL—the latter alone, by the aid of agricultural skill, industry and enterprise, is made to furnish three-fourths of the material that gives existence to the foreign commerce and home trade of the United States :

Our Exports to foreign countries for 1851, amounted to	\$196,689,718
Of this amount, the products of Agriculture furnished	145,903,778
Those of the forest, the sea, manufactures, &c.	50,785,940
Showing an excess of Agricultural products over all others, of	\$95,117,838

Thus it is demonstrated, that AGRICULTURE is the great cardinal interest of the nation. And in this particular region, it is not only the leading interest, but almost the sole reliance of our people, constituting the very ground-work upon which the whole superstructure of our business is built and sustained : It is, indeed, the life-blood of all our trade and commerce, and has become the *regulator* of the whole machinery of our business transactions : So that when agriculture languishes, trade and commerce, manufactures and the mechanic arts, all droop and decline.

How vitally important it is, then, that a branch of industry to which all other interests are merely auxiliary, and with which their business prospects are so intimately interwoven, should be aided, and fostered, and HONORED by all classes, and at every sacrifice consistent with a proper regard for the *subordinate* interests of the community. Agricultural associations, and agricultural publications, are undoubtedly among the readiest means of effecting such improvements in the systems of tillage common in this region, as the advanced state of the ART at this day imperiously demands,—as well as of diffusing valuable information, and of imparting such scientific knowledge to our agriculturists, as will tend to elevate their “calling” to a rank commensurate with its vast importance. No such distinctions as “privileged classes” can be recognized under our republican system ; but if, by some anomalous up-heaving of the political and social elements of our country, they were to be, the HOLDERS OF THE FLOW should unquestionably be our “lords paramount” of the realm, since they *are*, theoretically and practically, already the “sovereigns” of the land. *Producing* all that commerce subsists upon, they are the arbiters of the trade and business of our towns and commercial marts ; and could, if they would, hold the political destinies of the Republic in their hands.

RACINE AGRICULTURAL SOCIETY.

In this connection, it may be appropriate for me to state, that our farmers, fully impressed with the utility of agricultural associations, organized the “*Racine Agricultural Society*” on the 1st of September last ; and by the 14th of October, 234 persons had become members by the payment of \$1 entrance fee each, thus constituting a fund of \$234. On the 14th and 15th of that month, an Agricultural EXHIBITION and FAIR was held, at which \$203,50 was distributed, in forty-six premiums to different competitors, in sums varying from \$10 to 50 cents each. These premiums were awarded, respectively, for the best cultivated farm—best reclaimed marsh lands—best crops of wheat, corn, oats, vegetables, &c.,—several for the best horses, working oxen, milch cows, beef cattle, neat stock, sheep, hogs, and breeding animals—for butter, and for cheese—for the best PLOWING, and for various agricultural implements—for manufactures of cassimeres, flannels, sheeps—gray cloth, cabinet furniture, &c. : And DIPLOMAS were awarded for a variety of fruits,

such as apples, peaches, pears, quinces, and grapes, and for garden sauce and escu-lents ; for a good many stoves, of new and beautiful patterns ; for hard-ware, me-
chanics' work and wares, ingenious and useful inventions, jewelry, &c. ; as well as
for a great variety of family fabricks, and ornamental and needle work, exhibited
by the wives, the daughters, and the families of the members of the society—man-
ifesting a spirit of improvement, as well as a degree of skill and accomplishments,
on the part of the ladies of the rural districts of our county, rarely excelled in the
most refined of the agricultural communities at the east. So brief a period inter-
vened between the organization of the society and the holding of the Fair, (six
weeks only) that it could not be expected this *first* exhibition would afford a fair
sample of the agricultural products of the county, or of the *progress* made by our
farmers in *systematic* agriculture, &c. But the exhibition was highly respectable,
and highly gratifying to every friend of agriculture in the county. This society is
destined to open up a new and more propitious era for the farming interests of this
county.

CONSTITUENTS OF SOIL.

Agricultural chemistry teaches, that *soil* is formed by the intimate mixture
of the *debris* of rocks, in the condition of sand, gravel, or clay, with decomposed
animal and vegetable substances, in the shape of *mould*, or *humus*. The simple min-
eral called *alumina*, is the base of all *clay* ; while pure clay is composed exclu-
sively of silica and alumina. Any earthy mineral, in a granulated form, is called
sand. Now for the sake of simplicity and convenience, I will adopt the division of
soils into these three constituents—*mould*, *sand*, and *clay*.....although by scientific
analyses, these are susceptible of an almost infinite sub-division.

SOIL, then, is constituted of what might be called an amalgam of sand, clay,
and mould. The nature, composition, and value of these constituents of *soil*, vary
indefinitely in different localities ; and a slight change in the proportion of the in-
gredients of a soil, might greatly augment or diminish the product of the farmer in
cultivating crops therein. Earth containing no mould, (or combustible matter) is
not of itself *soil*, any more than animal or vegetable substances *alone* make soil.
How important it is, then, that the farmer should know enough of the chemical
properties of the surface of the earth he operates in, to enable him to cultivate in
each field that crop for which its soil is best adapted—or rightly to *temper* his soil,
so as to effect a judicious combination of those constituents most congenial to the
product he may desire to reap from it.

RACINE SOIL, ADAPTED TO WHEAT.

I have made these suggestions with the view of illustrating my opinion, that
Racine county is a good wheat-producing district ; and that the failure of our farm-
ers, for three or four years past, to raise good crops of that grain, is attributable
more to a lack of knowledge of the chemical properties of their soil, and to the ab-
sence of a judicious system of alternation of crops and sub-soiling, than to any in-
herent defect of the soil itself.

An eminent Scotch chemist, Dr. Anderson, made critical analyses of several
wheat soils in Scotland, in 1850 ; among which, samples of surface soil from Mid-
lothian gave 6.789—1000ths of combustible matter, or mould. Its composition was
as follows: Carbon, 4.500—hydrogen, 0.215—oxygen, 1.806—ammonia, 0.268 ;
making the 6.789. This soil was distinguished for its productiveness in wheat.
Now it is worthy of note, that that powerful fertilizer, Peruvian *guano*, contains

6.500 of organic animal matter, almost precisely the proportion that is found in the Scotch wheat soil above described.

The celebrated German chemist, author and agriculturist, Von Thær, says the richest soil he ever analyzed, was composed of

19½	parts in a hundred of humus, (or combustible matter) ;
70.of clay ;
7½of silicious sand ;
3.of lime.

100

The fattest soil, however, is not best adapted to wheat ; but, according to the testimony of the most intelligent farmers, a first rate wheat soil ought to contain only about *six or seven* parts in a hundred of humus (or mould)—which, it seems, is just the proportion of that constituent in the *sub-soil* of Racine county, as analyzed by Dr. PHIL R. HOY, of this city. The Doctor, by the way, has done good service to science by the investigations he has made in the ornithology, zoology, botany, horticulture, agriculture, &c. of the country ; and who may be expected, I understand, at no remote period, to favor the public with his scientific researches.

ANALYSIS OF RACINE COUNTY SOIL.

The following is what Dr. Hoy calls his "rough and simple" analysis of the soil of Racine county, but the correctness of which may be depended on. His samples were taken from a high point on the prairies :

<i>Soil 4 inches below the surface :</i>	<i>Sub-soil 10 inches below surface :</i>
Water of absorption.....	11.0.....
Decayed vegetable matter, (humus).....	12.5.....
Soluble salts, mostly lime.....	3.5.....
Clay, (aluminum).....	25.0.....
Silicious sand.....	48.0.....
.....	100.....

SUB-SOILING REQUISITE.

From this analysis, it will very readily be seen that our surface-soil is, as a general thing, too "fat" for a wheat crop ; and that the *sub-soil* of itself is better adapted to the production of that grain. Hence the utility of sub-soiling our prairie land, is most manifest.

GEOLOGY OF RACINE COUNTY.

In Dr. Hoy's note communicating the analysis given above, he thus notices the geological characteristics of this county : " Racine county is underlaid by the 'mountain lime-stone formation,' which comes to the surface at several points, affording a superior quality of lime, as well as stone for ordinary building purposes." He remarks, in continuation, that the surface-soil of "the up-land prairie is of a dark color, containing an excess of organic matter. Lime is found in but small quantities near the surface, but as you descend it increases, which, when mixed by sub-soiling with the abundance of decayed vegetable matter of the surface, will form a superior wheat loam. The want of success in growing winter wheat, is mainly owing to the superficial manner in which the land is now cultivated : The wheat is sown upon the surface of the black vegetable soil, and the roots penetrate but a few inches ; when winter comes, the plants are either blown out by the roots, or the black soil absorbs so much heat when the sun shines that it is constantly subjected to freezing and thawing, and its vitality is soon destroyed. Now the remedy for this is sub-soiling, whereby a soil is brought to the surface that has more

consistence, containing more lime and clay, and affording the roots of the plant a deep and permanent footing."

This then will explain more than half the secret of short wheat crops with us. *SUB-SOILING* is undoubtedly among the most important of the remedies. A ready method of doing this, is to cut a furrow *seven* or *eight* inches deep at first, and then *six* or *seven* inches more at the bottom of the first furrow—thus turning up the subsoil to the depth of some fourteen inches. From the report of an agricultural society in Guernsey, England, in November last, I perceive they use heavy sub-soil plows there drawn by eight cattle, cutting a single furrow twelve inches in depth and fourteen in width. Might not the same plows, and same number of cattle used in breaking up our prairies, be employed to do sufficiently thorough work in *sub-soiling* here, after the fashion practised in England?

Now if two bushels of good seed wheat to the acre, sown on ground thus prepared, early in September, and covered in with a light plow or cultivator, will not bring a remunerating crop on almost any sufficiently dry land in Racine County, then the failure must be attributed to other causes than defective soil and bad tillage—causes that may be termed fortuitous, and that are as likely to be operative in any other State or county as this.

DISEASES OF THE WHEAT CROP.

Yet with every possible precaution, the wheat crop is subject to divers casualties, some of which can neither be foreseen nor guarded against. The farmer consequently runs much hazard of being disappointed, to a greater or less extent, *every year*, where he places too much reliance upon that grain as his principal marketable product.

Winter-kill may, in a good measure, be averted by the process of sub-soiling just alluded to; yet that remedy will sometimes fail.

The *Fly* is a very troublesome enemy to the growing wheat; for which I know no reliable antidote.

The *Rust* is a disease dependent so wholly upon the condition of the atmosphere at a critical conjuncture in the formation of the berry of the wheat, that neither skill nor care can effect much in the application of remedies.

The "*Rot*," or *Blight*, has proved very destructive to the wheat crop in this region within three years past—affecting most fatally the "hedge-row" spring wheat. It is a mysterious disease—almost as much so as the "rot" in the potato; and is believed by some to be superinduced by atmospheric influences, similar to those that cause the "rust." As yet, I have seen no remedy suggested. This disease attacks the berry in the ear, (or head,) generally after it has attained full size, but while yet in its milky state. Frequently one half the berries in a head will be affected, or wholly rotted, while the balance of the grain in that head will remain sound and plump.

GOOD FARMING.

With a very superficial *practical* knowledge of agriculture, it may appear presumptuous for me to attempt to instruct old farmers in regard to what constitutes *good farming*. Yet from a diversified reading, with habits of investigation, and ample opportunities of observation, at home and abroad, I may peradventure be enabled to state facts that are not familiar to all minds, and that may not be devoid of interest to the curious inquirer after new truths evolved from old subjects.

There are certain things essential to be done, and rules to be observed, by every cultivator of the soil, in the neglect of which he will incur the reputation of a *slovenly* farmer: But to farm it wisely, judiciously and profitably, in this region, all must agree that *extra* attention is demanded to

A ROTATION OF CROPS.

Hitherto, crop after crop of wheat on the same ground, has followed in annual succession for a series of years. Such a course would be scouted at the east; and it must be abandoned here, or else every variety of wheat will in succession "run out" with us. But the *most* judicious system of rotating crops can only be ascertained by actual experiment and close observation. A system adapted to one locality, might be illy suited to another. Each experiment, then, should be chosen with express reference to the chemical properties of the soil, as well as to the climate and the market, of the region where made. Wheat should be alternated with other crops *every* year. Having seen a rotation like the following suggested, I should think it worthy of trial in Racine County:

- 1st year, corn, oats and roots, well manured;
- 2d " barley, or peas—or both;
- 3d " wheat; and
- 4th " clover, say for three years.

Circumstances may occasionally arise, that will justify a departure from this rule; in such cases, however, the farmer's own sound judgment would be his safest guide. Rotations similar to the above, have tripled the products of many farms at the east; and I know no good reason why like results might not be attained here, by a similar process.

MANURES.

As auxiliary to this branch of the system, the time has now arrived when it behooves our farmers to pay especial attention to the making and preserving of manures, and to the discreet and economical use of them.

DIVERSITY OF PRODUCTS.

Since the conviction has been brought home to the minds of our farmers, that it is unwise and unsafe to rely solely, or even mainly, on the *wheat* crop as their marketable product, an immediate necessity is felt for increasing the *variety* of their productions. And it becomes important to know *how* to divide their attention between grain growing, stock raising, &c., so as to realize the best reward for their labor, skill and money, expended in the management of their farms. In this, as in the rotation of crops, they must depend in a large degree upon their own sound judgment. The shrewdest of our farmers are yearly more and more diversifying their crops and their labors—so that if they fail in some, they may hit in others.

In addition to the ordinary grain crops, grass, &c., our farmers have now become quite awakened in regard to the rearing of horses and neat cattle, instead of *importing* them from Illinois as heretofore—to the rearing of sheep, for their wool as well as their carcass—to the breeding of pigs and the fattening of hogs—to the culture of flax and flax-seed; and even the cultivation of CRANBERRIES is creating a sensation with some of our citizens and practical agriculturists.

A broad field is thus opened up to stimulate the enterprise and reward the labors of our farmers. And although some are straitened just now, by reason of

the monetary pressure that is felt throughout the country at this particular juncture, yet they possess all the elements of abundant and diversified products,—of health, comfort and competence,—all the substantial luxuries of life, indeed—in the broad acres and rich soil that constitute them lords of fertile manors and happy homesteads.

Perhaps there is not a farming country on this continent, where the time, the attention, the skill and the industry of the agriculturist, can be legitimately employed, *on his farm*, in attending to so great a diversity of remunerating employments, as in Wisconsin. I will enumerate some of the most prominent:

WHEAT.

This grain is said to have been first found on the central table land of Thibet, in Asia, where its representative still exists as a grass, with small mealy seeds. Although the wheat crop is becoming more and more precarious, and our farmers are resorting to other products, which hitherto received but little attention, yet it is still the principal crop of our country. According to the census returns for 1850, it would seem that the aggregate of wheat grown in Racine county that year, was something over 300,000 bushels. And it appears from authentic data, that the quantity of wheat *shipped* from the port of Racine, in 1851, was 284,678 bushels—besides 114,885 bushels, in the shape of 22,977 barrels of flour.

About twenty varieties of winter, and eight or ten of spring wheat, are most commonly in use throughout the United States. Latitude and locality usually determine the favor or disfavor in which these varieties are respectively held in different regions of the Union. In this county, the red-beard or Mediterranean, the white flint, the bald white, the Etrurian, the Soules, the red-chaff bald, and the blue stem, are the kinds that most attract the attention of our farmers, or have done so for a year or two past. Which of these is best adapted to this particular region, is a mooted point with our most astute farmers. Perhaps the best sample of winter wheat that has been sold in this market, of the last year's crop, was of the *Soules* kind, from Walworth County; and it was the same kind that took the premium at the Racine County Agricultural Fair, in October—no other sample was exhibited to compete with it. Mr. Nicholas Le Prevost, and some of his neighbors, living near this city, have been raising the *Etrurian* winter wheat for a year or two past, and have succeeded well with it. With deep plowing, it is seldom winter killed, and rarely affected by the rust. It yields them from 22 to 25 bushels to the acre, the berry being bright and plump. Mr. Le Prevost sold most of his crop for seed, at \$1 per bushel.

SPRING WHEATS. . . . "HEDGE-ROW."

This species of spring wheat became a great favorite among our farmers six or seven years ago, and had nearly supplanted all other kinds in this county. It yielded from thirty to forty, and in some instances, 50 bushels to the acre, of sound plump grain, which at one time sold for nearly as much as winter wheat. Even careless tillage would bring 30 bushels to the acre; and the crop was considered as sure as oats. But it had its day; and, to use a common phrase, has now nearly "run out." Its culture is gradually being abandoned by our farmers, and other kinds substituted in its place.

"Canada Club," seems to find most favor lately; and the Italian, Black Sea, Pritcher, Red River, (Pembina,) and Labrador, are being tried by our farmers. The latter, however, proves too hard and *flinty*, and flours badly.

OATS.

This grain was originally found in North Africa. The crop has been unusually productive the past year. Something like 270,000 bushels is reported for 1850, as the growth of this county for that season. Assuming that as data, and the product for 1851 should be stated at 400,000 bushels at least, for a more prolific crop than the last was never known in this region. Over 100 bushels to the acre, was proved at the agricultural fair. About 100,000 bushels was shipped from this Port during the past season of navigation.

CORN.

Or MAIZE, which is indigenous to the American continent, is ordinarily a good and safe crop in this county. About 80,000 bushels have been grown in the county the past season, and not far from 20,000 bushels shipped abroad from the port of Racine. Corn will be more extensively cultivated hereafter, for fattening pork and beef, for feeding stock, and for family use. It does not pay well for shipment, except to the lumber region. Last season was remarkably unpropitious for the corn crop; cold rains continued through May, causing much of the seed to rot in the ground, and thus creating the necessity of re-planting.

BARLEY.

Is found wild in the Himalaya mountains, which bound Bengal and Upper Hindostan on the north, and forin the rich valley of Cashmere, from whence the costly shawls bearing that name were originally brought. Barley requires a fatter soil than wheat, and is consequently better adapted to the dark surface soil of Racine county. 40 bushels to the acre is a common yield, and 35 to 40 cents a bushel the usual price, while the crop almost always "hits." It proved more profitable than spring wheat the past season, in this county. The product of 1851 somewhat exceeded 50,000 bushels; 40,908 bushels was shipped from this Port in that year.

BUCKWHEAT.

Is said to have come originally from Siberia and Tartary. It grows luxuriantly in our soil, and yields abundantly. The home-consumption is large; it supersedes, to a considerable extent, the use of other bread-stuffs in very many families, at one meal in each day at least, during four or five months in the year. Some 30,000 bushels, was the product of this county for the past year. The export has been small, thus far.

OF PEAS AND BEANS,

I know not the origin. They are of the same class of leguminous plants, however, as the "LENTIL" of Scripture history: And I have somewhere seen it suggested, that one or both may have been added to the *lentils* which are supposed to have formed a principal ingredient in that "MESS OF POTTAGE" which cost a personage of some note among the ancients his "birth-right." They are thus used in the "olla podrida" of the Peruvians.....a "mess" which I have found particularly grateful to a collapsed stomach, after a dinner-less tramp over the bald "sierras" of the tropics "where it never rains." Nowhere (always excepting California) do peas and beans thrive better than in Racine county, although they are not extensively cultivated as a field crop. They pay well as a marketable product at the east, but are just beginning to be grown with that view here. The home consumption is large; 450 bushels only, were exported from Racine last season.

POTATOES.

Of this important article of "food for both man and beast," the production has greatly decreased, in proportion to the increase of population, within three years

past—wholly attributable to the “rot,” or disease, which has made such sad havoc in that crop, here and elsewhere. A few years since, Racine exported thousands of bushels of potatoes to Chicago and other points; but the “rot” has nearly cut off that product from among the items that make up the commerce of our Port, a few only being shipped to the lumber region. Some think, however, that the rot has nearly had its run. (a)

SWEET POTATO.

Small patches of this delicious vegetable are grown by some of our farmers, who have occasionally produced a tolerably good article, and intend hereafter to experiment more largely upon their culture. A light, sandy, warm, dry soil, is best adapted to the growth of the sweet potato.

FLAX.

Next after cotton and wool, FLAX is the most important material that has yet been discovered for clothing the civilized portion of the human family. And the inducements to its culture are greatly increased, from the fact that it may be made virtually to yield two crops a year—one from its FIBRE, and the other from the SEED. It is calculated that a good crop will give 350lbs. of *flax lint* to the acre; of which about one-third, say 120lbs., will be *flax cotton*, and the other two-thirds, say 230lbs., coarse tow, suitable for bagging or the paper mill; and of *seed*, there will be from 12 to 15 bushels to the acre. The product of one acre cultivated in flax, may therefore be stated thus:

Flax cotton, 120 lbs., at 7 cents per lb.....	8.40
Flax lint, or tow, 230 lbs., at 3 cents.....	6.90
Lin—seed, 15 bushels, at 85 cents.....	12.75
Annual product, per acre.....	28.05

This is, certainly, a very fair remuneration for the labor and cost of tillage. Even when cultivated for the *seed* alone, FLAX is a profitable crop, yielding, in that event, about 20 bushels per acre; which, at 85 cents, is \$17 cash, since there is always a ready and cash demand for the article, and the price very seldom fluctuates. Active inquiries in regard to the flax culture, are being made in all parts of the state; and the farmers of Racine county are preparing to go more largely into that crop the coming season than heretofore. (b)

NOTE a: POTATO ROT: Mr. Flanders, of Lowell, Mass., says the sprinkling of *slack'd lime* on the potato vines, is a remedy for this disease, alleging that it “kills the insect that causes the rot;” and some farmers in Maine and New-Hampshire, who have tested this remedy, endorse it as efficacious. It is easily and cheaply tried. M. Charles Morren, a Professor in the University of Liege, (on the borders of Belgium) attributes this potato disease to a *fungus*, extremely thin and prolific. He says this *botrydis* pullulates or reproduces in an incredible manner; and describes the reproductive bodies as in the form of an egg, not exceeding in diameter the 392-700ths of an inch. But he prescribes no remedy.

NOTE b: FLAX... Chevalier Claussen (a German, I believe) has invented a process and a machine for converting the green flax, immediately on being pulled from the field, into *flax cotton* ready for spinning, without being previously “rotted,” &c. as hitherto practised. He has obtained a patent from our government, and sold rights for using the invention in most of the New England States, as well as in New York, Illinois, &c. It has been tested in presence of some of the most intelligent of the artizans and men of science at the East; and it would seem to be their opinion, that it performs all that is claimed for it. A. C. INGHAM, Esq. Secretary of our State Agricultural Society, at Madison, has samples of *flax cotton*, both raw and manufactured, prepared in accordance with Chevalier Claussen's method, which he is exhibiting to members of the legislature, and all others who may feel sufficient interest in the matter to call on him for that purpose. And I observe a communication from Governor FARRWELL, in the Madison papers, in which, among other

HOPS,

Grow spontaneously as a wild creeper, in most parts of northern Europe and the United States. Their culture is made profitable in England and Germany, and in the older settled portions of our country. The soil and climate of Racine county are well adapted to their culture, and I understand some of our farmers mean to try the experiment of hop-raising. Barely sufficient for home consumption, have hitherto been produced in our county.

VEGETABLES.

No where (out of California) do onions, beets, parsnips, carrots, pumpkins, turneps, and every variety of garden vegetables, grow more luxuriantly or yield better than in this county, or in Wisconsin generally. Vast quantities are consumed in families, and some (especially onions) are shipped to regions less favored.

TOBACCO,

(Which is indigenous to the American continent) has attracted the attention of some of our agriculturists as a marketable product. Small patches have already been cultivated, for family use; and as a considerable portion of our people indulge in the luxury (or vice, according to the fancy of the reader) of the PIPE, several of our farmers design trying the crop for the supply of that demand.

THE CRANBERRY

Is a native of both Europe and America. It grows spontaneously and abundantly in some parts of Racine county. On and near Wind Lake, in the town of Norway, I am told, more than 150 bushels have been picked by hand the past season—a boy being able to gather with his hands two bushels a day, for which he receives 25 cents a bushel, as his share in the crop. Cultivated cranberries are gathered by means of iron-wire rakes, with which a man can get 40 bushels a day. These Wind Lake cranberries are decidedly the finest that were ever brought to this market. They sold in Rochester (not far from where they grew) at \$1.50 per bushel, and in Racine (23 miles distant) at \$2. On wet land, they can be propagated by being sown broad-cast; and on a dryer soil, they may be cultivated from the plants, in drills 16 to 20 inches apart: They should be well weeded the first year, but will need less attention the second; and on the third, they usually spread over the ground so as to protect themselves—bearing you a crop of fruit to reward you for your time and trouble. 150 bushels to the acre, would be a moderate yield for cultivated cranberries; and the expense of cultivation, in the long run, would be less than for almost any other crop. I am among those who esteem the cranberry, for sauce, jellies and tarts, one of the very best fruits we have. They can be saved, perfect and fresh, for as long a period as the apple; and are more easily prepared for the table, on an emergency.

[NOTE a . . . CONTINUED.]

interesting facts in relation to the culture of FLAX in our State, he mentions the receipt of a letter from John Galbraith, Esq. of Mukwanago, Waukesha county, who is said to have had more experience in the cultivation of flax than any other man in this state; and he declares it as his belief, that Wisconsin is as well adapted to its growth as any other country:

In 1848, Mr. G. cultivated 20 acres in flax . . .	which was a good crop;
" 1849, " 96 "	. . . very fine crop;
" 1850, " 120 "	. . . dry season—middling crop;
" 1851, " 108 "	. . . splendid crop.

In view of the anticipated adaptation of *flax cotton*, by means of Chevalier Claussen's invention, to most of the uses to which the *cotton* of the South is now applied, many are sanguine in the opinion that the former will, to a considerable extent, supersede the latter in furnishing raw material for the factories at the East.

GRASSES AND HAY.

Dr. Hoy remarks, that the "last two seasons have abundantly proved that the prairies [of this region] produce timothy, clover, and red-top, as well as the best timbered districts, for grazing"—and, I may add, for grass lands generally. Being now assured of this fact, our farmers are very generally turning their attention to the rearing of stock, and to the curing of hay from cultivated grasses, for exportation as well as for home consumption: Until recently, abundance of upland prairie hay, some of it nearly equal to timothy, could be readily and cheaply made by every one who might need it; hence the cultivation of the tame grasses was neglected. But since a large proportion of the country has now become occupied, and very much of it already passed under the plow, the necessity of *cultivating* grasses has become imperative, and large fields are yearly being ceded to timothy and clover, principally the former; in wet ground, however, red-top is found to thrive best. Hay is becoming an article of commerce with us: Some of our farmers, near this city, pressed, baled, and shipped abroad, 250 tons during the past season.

GRASS SEED.

Many among us are devoting a good deal of care to the cultivation of *grass seed*. Some 5,000 bushels was saved the past season in this county; and 310 bushels was the amount of our exports of that article for 1851. From 160 acres ceded to timothy in the town of Yorkville, in this county, the entire crop of grass was cut and thrashed; the yield of seed was over $4\frac{1}{2}$ bushels to the acre—giving an aggregate of 720 bushels: The HAY, however, is much damaged in the process of thrashing out the seed—but was worth at least \$1 per ton; while \$2 per bushel for the SEED is the lowest price in the home market: The product from this 160 acres, then, may be thus stated:

160 tons of thrashed Hay, at \$1 per ton.....	\$ 160
720 bushels of Seed, at \$2 per bushel.....	1,440
Showing an aggregate product of.....	1,600
Every item of expenditure could not have exceeded....	500
Exhibiting a net cash profit of.....	1,100

It would be a fair estimate of the value of these 160 acres, fenced, ceded to timothy, and with suitable out-buildings, &c., to place it at \$20 per acre.... say, for capital invested.... \$3,200

Showing a clear profit of more than 34 per cent. It will thus be seen, that this branch of farming can be made gainful, if judiciously managed.

FRUIT.

I have the testimony of Dr. Hoy, who is theoretically and practically a horticulturist of many years' experience, that "apples, pears, cherries and plums, do well" in this county, "so far as the young trees have come into bearing." But he remarks, further, that "peaches, nectarines and apricots, will never be a sure crop" in Wisconsin, because the cold of the winters kills the 'blossom buds' of these kinds of fruit. Another intelligent gentleman suggests, however, that it is the long continued warmth of our *autumns* that does the mischief to the peach crop: The genial temperature of the "Indian Summer" of Wisconsin, swells the blossom buds of the peach *late* in the "fall"—thus rendering the germ of the fruit extremely liable to be killed during the winter.

"The Clinton and Elsenburg GRAPES (continues Dr. Hoy) are perfectly hardy, and never fail producing a large crop. The Isabella does well in most localities, the fruit generally ripening."

At the late Racine Agricultural Fair, diplomas were awarded for the best samples of apples, peaches, pears, quinces, and grapes; and it is said that this display of Racine county fruits, excelled that exhibited at the State Agricultural Fair at Janesville.

In the year 1846, Mr. Seth H. Kellogg, then of this county, sold about \$60 worth of peaches, the production of his own orchard. And I have eaten as fine peaches raised by the Rev. Mr. HALL, of Geneva, Walworth county, as I ever did in the peach regions further south. Walter Cooley, Esq. has also produced most delicious peaches on his farm near this city—as have many others of our citizens in different parts of the county. Yet, as Dr. Hoy remarks, the peach is not a *sure* fruit with us. Our region, however, appears to be quite congenial to the apple: A good many barrels of native Wisconsin apples, have been sold in the Racine market the past season—which were superior to most of those brought from New-York and Ohio; from whence, however, thousands of barrels are yet annually imported into this part of Wisconsin.

STOCK RAISING.

Experience shows that Racine county is well adapted to the rearing of neat cattle—of cows for the dairy, heeves for the shambles, and steers for draft oxen. The number of cattle driven into this state from Illinois and Indiana, is decreasing yearly; and our farmers are now more saving of their calves for stock, which they are manifesting much anxiety to improve by choice breeds.

It appears from the census of 1850, that the value of every kind of live-stock was then stated at \$250,000 in the county,—and may now be safely put down at \$300,000.

BEEF AND PORK.

Several of our enterprising citizens are vigorously pursuing the business of packing beef, pork, &c.; some 4,000 barrels were shipped abroad from this Port during the past season, of an aggregate value of \$35,000. The number of slaughtered hogs brought to Racine during this season has been large; and much pork fattened in our county has found a market elsewhere. Pork now sells readily at from \$3.50 to \$4 per cwt.; whereas some few years ago it brought only \$2 to \$2.50.

HORSES.

Of these noble and indispensable animals, there are about 3,000 in Racine county. . . . of an aggregate value, say, of \$150,000. [In Ohio, it appears that the whole number of horses is 517,396, and the average value per head \$39: Whole number of mules 105,968, and the average value \$47 a head.] There is a diversity of opinion among our farmers, as to the relative *utility* of horses and oxen as working animals on a farm, although very many use both. There are probably not to exceed 2,000 working oxen in the county; the horses therefore predominate as to numbers: Yet when it is considered, that no inconsiderable portion of these 3,000 horses are used for other than farming purposes, and that the 2,000 oxen are *all* literally beasts of burden to the farmer, we may set down the number of each description of animals that are directly employed in agricultural operations, as nearly equal. It may be assumed, then, that at least two-thirds of all the horse-flesh in Racine county, is in the shape of FARM-HORSES. This of itself exhibits, in a strong point of view, the *utilitarian* characteristic of our people. In England, where the *privileged* classes, such as the "gentry," the "nobility," &c. are numerous, out of 2,000,000 of horses in the kingdom, only *one-twentieth*, say 100,000, are used for agricultural purposes! A large proportion of the balance, are what may be called "pleasure horses". . . . mere accessories to the luxurious propensities of man! Many of our farmers are now devoting much of their attention to the rearing of colts; and the show of horses at our agricultural exhibition, was respectable.

WOOL AND SHEEP.

It is believed that wool is to become one of the most important marketable products of this part of the state. There are at this time, however, less than 10,000 sheep in Racine county, and the product of wool will not much exceed 25,000 lbs. for the past season. Of this quantity of wool, the three woollen factories in the county, (two at Burlington and one at Waterford) together with the family spinning-wheels and looms, and the fire-side knitters, use up a good deal. A large proportion of the wool produced in the counties immediately west of us, sought and found a market at Racine, as is evidenced by the heavy shipments of that article from this Port in 1851—the exports of that year being 106,471 lbs. Prices paid for wool the past season have justified a renewed attention to sheep; and our farmers are now selecting the best breeds with which to replenish their flocks. A determination to go more largely into the Wool Business than heretofore, is pervading our county. It has been demonstrated, that, with judicious management, SHEEP REARING can be made a profitable branch of farming in this county. Mr. Benjamin Stock of the Town of Yorkville, purchased 505 choice sheep in 1850, for which he paid \$847.50—or rather gave his note for that amount, payable in one year at 12 per cent. From the product of wool from his flock, and from the sale of fat weathers and lambs, he was enabled, at the end of the year, not only to pay the principal and interest of the purchase money, but to retain the full number of sheep with which he began—the increase of lambs having been equal to the deaths by casualty, fatlings sold, &c.

Again: Another farmer of that Town, took 100 on terms similar to those just named; and from the fleeces of his flock, and the fatlings he sold from it, he realized sufficient to pay principal and interest of the purchase money, with about \$5 cash as a surplus, and his full complement of 100 sheep remaining (and paid for) at the expiration of the year. These operations are the result, doubtless, of GOOD FARMING; but they are conclusive as to the gainfulness of this branch of agriculture, where good management is favored by moderately good luck, good markets, &c.

MANUFACTURES.

Independently of the considerable amount of wool worked up in families, there are three woollen factories in the county—two at Burlington, owned respectively by Messrs. James Catton and Pliny M. Perkins; and one at Waterford, owned by Mr. Dean—which consume a good deal of wool in the manufacture of cassimeres, flannels, sheep's gray cloths, and divers other fabrics.

AN OIL MILL is in operation at Burlington, owned by Mr. Perkins. His purchases of seed for the year amounted to 600 bushels of flax seed, at 84 cents per bushel, and 200 bushels rape seed, at 75 cents. From this 800 bushels of seed, it seems he manufactured 1,300 gallons of OIL, worth \$1 per gallon. This certainly exhibits a remunerating business.

Of **FLOURING MILLS**, there are seven or eight principal ones in the county, which involve a capital of something like \$100,000, and work up, say, 300,000 bushels of the different varieties of grain. Of **FLOUR**, 22,977 bbls. were shipped from this Port in 1851, and a like quantity consumed.

FURNACES and FOUNDRIES : The three Air Furnaces and Foundries in operation at Racine, employ a capital of \$25,000. From these manufactories the country interior is supplied with hollow ware and stoves, a great variety of castings for mill-irons, for machinery, &c.

For the manufacture of thrashing machines, fanning mills, carriages, wagons, plows, &c., there are some eight or ten factories in operation at Racine, Burlington, Rochester, Waterford, &c. requiring a capital invested of some thirty to forty thousand dollars.

The total annual product of these establishments, and of all other manufacturing industry in the county, cannot fall short of - - - - - \$350,000

HISTORICAL.

Bordering as this region did the south-eastern extremity of Wisconsin, and nearest in proximity with the "white settlements," it was here that the plow-shear earliest obliterated the "war-paths," and effaced the moccasin-prints, of those powerful bands of the nomadic race, to whom Wisconsin was whilom one vast "deer park." The brave, the magnanimous and athletic chief, "O-co-mah-wah-ba-she," (or *The White Swan Chief*) who was "born to white man's estate," with his band of Potawatomes, were the last remnant of Aborigines who lingered on the banks of the "Ah-chip-pe-cotton"—known among the French sojourners here as the *riviere de Racine*, but rendered "Root River" in our vernacular. Even this remnant of the "White Swan's" tribe, took their final departure hence as early as 1834, sullenly wending their way to the distant north-west, in search of new hunting-grounds, and of "a lodge in some vast wilderness" far removed from the perilous proximity of the insatiate "pale-faces."

American adventurers began to make "claims" in this vicinity that same year. And I believe Hon. GEORGE H. WALKER, the present worthy Mayor of Milwaukee, built his first Occupant's shanty in Wisconsin, at or near "Skunk's Grove" in this county, in the autumn of 1834. In 1835 several families located at the mouth of Root River, and founded the village (now city) of *Racine*—adopting the French name of the river for the village—*Captain Gilbert Knapp* having been the principal pre-emptor of the village plat.

CITY OF RACINE.

RACINE occupies one of the most beautiful locations for a Town on the western shores of Lake Michigan; and as it proved to be an eligible point for a commercial mart and Lake Port, capital and enterprize were early attracted hither, and the place has had a rapid, continuous and healthy growth, as will be seen by the following statement of six several enumerations of its inhabitants :

CENSUS RETURNS OF RACINE :

In 1840, the population was only	- - 337	In 1849, it was	- - - - - 4,002
1844,	- - - - - 1,100	1850,	- - - - - 5,111
1847,	- - - - - 3,004	1851,	- - - - - 5,897

And at this date, (1852) our population will doubtless exceed 6,000

RACINE HARBOR.

The population of Racine is composed mainly of matter-of-fact people, the business portion of whom are markedly utilitarian in their views, and practical and discreet in their operations. And although in their expenditures for public works, and in aid of all laudable enterprizes, they have displayed a munificence unsurpassed in any country so newly peopled, yet in the bestowment of their liberality they have usually discriminated in favor of objects of known *utility*. Principally by their own energy and enterprize, and by heavy expenditures from their private means, a **HARBOR** has been constructed here that can accommodate all the shipping that navigates this Lake.

The people themselves projected and commenced this important work; and, up to the present time, they have expended in its construction - - - - - \$43,352.42
Add this amount, appropriated by Congress - - - - - 12,500.00

And the total cost of the Harbor at this date will be - - - - - 55,852.42

It is believed to be without a parallel in the history of the improvement of the Lake region of the West, that a single community, of limited population, should have projected and successfully prosecuted, mainly by their own efforts—by personal services, individual contributions, and self-imposed taxes—a public work of the nature and magnitude of the Harbor at Racine.

AS A HARBOR OF REFUGE,

For the retreat and shelter of vessels navigating Lake Michigan in stormy weather, or in the winter months during the close of navigation, RACINE possesses the advantage of ample capacity in her inner harbor, with an abundant depth of water in the River immediately above. A merchant fleet of a hundred sail of Lake craft, could lie in perfect security here, with their anchorage protected from storms by the adjacent bluffs.

1,660 vessels visited this Port during the last season of navigation; and

24 sail of vessels found a "snug harbor" here during the winter.

SHIP-BUILDING AT RACINE.

The Port of Racine consequently offers superior advantages for the building, equipment, and repairing of all classes of lake vessels. Ship timber abounds in the immediate vicinity, and ship knees are even exported hence to New-York, at a profit. There are two SHIP YARDS in active operation here, owned respectively by Messrs. JUSTICE BAILEY and DANIEL P. PUTNEY, each of whom has erected a Rail-Way at his Yard, on which to haul out vessels for repairs, &c.

3 schooners were built at these Yards during the last season;

1 do is now on the stocks, nearly completed; and

26 vessels of all classes, have been repaired here during the year.

Shipping, owned wholly or in part at Racine:

Propeller James Wood.	owned by W. T. Richmond :	Tonnage 300 . . .	Value \$12,000
Brig Mohegan.	Norton and Durand :	" 255	8,000
Brig Sam Strong.	Norton and Durand :	" 245	7,500
Brig Cherokee.	Durand and Hill :	" 204	7,500
Brig Iroquois.	W. T. Richmond :	" 310	7,500
Brig Olive Richmond.	W T Richmond :	" 250	5,000
Brig Ontonagon.	Isaac Taylor :	" 230	6,000
Brig Anne Winslow.	F A McHenry :	" 200	3,000
Brig Ontario.	N Pendleton and Co :	" 160	2,500
Schooner Mount Vernon.	W T Richmond :	" 240	7,500
Schooner Whirlwind.	Canfield and Co :	" 190	5,000
Schooner Newbold.	John G. Conroe :	" 180	4,000
Schooner Lewis C. Ervin.	Canfield and Co :	" 170	4,000
Schooner Charles Howard.	Messrs. Raymond :	" 100	2,500
Schooner Union.	H. Denton :	" 100	2,500
Schooner Colonel Benton.	W T Richmond :	" 160	2,000
Schooner Rocky Mountains.	Coleman and Linn :	" 135	1,500
Schooner Seventy-Six.	George D. Fellows :	" 85	1,800
Schooner Glynachor.	J. W. Jones and others :	" 78	1,600
Schooner Erie.	John Gallien :	" 70	1,400
Schooner Mariner.	E. M. Beckwith :	" 80	1,200
Schooner Asa Wilcox.	Harvey, Francis, <i>et als.</i> :	" 125	1,200
Schooner Dolphin.	Jas. M. Sprague :	" 90	1,200
Schooner Liberty.	Miller and Peters :	" 80	1,200
Schooner Amelia.	Mrs. Clark :	" 85	800
Schooner on the stocks.	Alexander C. Stebbins :	" 130	4,000
Sloop Wunx.	A. D. Eveland :	" 60	1,200
Sloop Lady Ann.	David Youngs :	" 60	600
Whole number of vessels owned, in whole or in part, at Racine, 28.]		4,372	\$ 104,200

Import and Export Trade of Racine.

At different periods heretofore, much pains has been taken to obtain correct statements of the trade and commerce of Racine; and to afford a condensed view of these statistics, the following abstract is appended, made up from reliable data:

In 1836, our Imports amounted to	- - -	\$52,835
While the Exports were only about	-	14,000
In 1841, the Imports rose to	- - -	108,898
Exports	- - -	25,041

In 1842-'43, the enterprize of our citizens was called into requisition for the improvement of their Harbor; and the work was prosecuted with such vigor, that at the end of three or four years good harbor facilities were afforded here to the shipping of the Lakes; and

In 1847, our Imports amounted to	- - - - -	\$546,599
And the Exports to	- - - - -	496,490
In 1849, the Imports were	- - - - -	757,000
The Exports	- - - - -	630,950
In 1851, the Imports were	- - - 979,558	} Aggregate "COMMERCE" of Racine, 1851; Monied value, \$1,559,262.
Exports	- - - 579,704	

SOME OF THE ITEMS OF LAST YEAR'S EXPORTS :

Of WHEAT, there was shipped from Racine the past year,	284,678 bushels ;	value \$185,040
FLOUR	- - - - - 22,977 bbls.	" 91,908
WOOL	- - - - - 166,491 lbs.	" 42,588
LEATHER, manufactured here, and exported	- - - 47,353 lbs.	" 9,470
HIDES, green and dry	- - - 160,000 lbs.	" 8,000
Beef and Pork	- - - 3,851 bbls.	" 35,270
Oats	- - - 80,893 bushels	" 20,223
Barley	- - - 40,908 "	" 20,454
Corn	- - - 18,941 "	" 6,620
Hay	- - - 250 tons	" 1,500
Packing Barrels	- - - 4,043	" 4,043
Ship-Knees	- - - 279	" 2,790
All other Exports	- - - - -	151,798
Showing the value of our Exports, as above stated, to be	- - -	\$579,704

MANUFACTURING CAPITAL :

Capital invested in Manufactures in the City of Racine	- - - - -	\$257,000
Total annual value of the product of Manufactures in the city of Racine, say	- - -	277,000

All of which is respectfully submitted to the Executive Committee of the Wisconsin State Agricultural Society, to be disposed of as they may deem most conducive to the advancement of the objects for which the society was instituted : By their fellow-citizen,

PHILO WHITE. ✓

The foregoing STATISTICAL MEMOIR of the Agriculture, &c. of Racine County, was, as will be seen from its address, prepared for our State Agricultural Society, for publication in the volume of "Transactions" which the Society has issued for 1851. But much anxiety having been manifested by members of the Executive Committee of our County Society, as well as by others, that these statistics should be more extensively diffused in Racine county than they can be through the medium of the large "Volume of Transactions" in question, they have been re-printed separately, in this form, with notes, emendations, &c., for local circulation.

Racine, May, 1852.

Banner & Harrison, Printers, Racine:



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